10/A/C

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MACHANIC COMMUNICATION EQUIPMENT SYSTEM
(THEORY)

Time : 3 Hours **Marks : 100**

Note: Attempt FIVE Questions in all. All questions carry equal marks.

1. (a) What do you mean by intrinsic and extrinsic semiconductors? How N-type and P-type semiconductors are formed.
   (b) Draw circuit diagram of a full wave rectifier and explain its working.

2. (a) What is the need of modulation in radio communication? Define amplitude and frequency modulation?
   (b) Draw block diagram of a superhetrodyne radio receiver and explain the function of each block.

3. (a) Draw the symbol, Boolean expression and truth table for 2 – input NAND and NOR gates.
   (b) Distinguish between RAM, ROM and PROM. Which is Volatile?

4. Draw the block diagram of a colour TV receiver and explain in brief function of each block.

5. (a) State what is meant by Radar? Mention some of its important applications.
   (b) Differentiate between interpreter, compiler and assembler.

6. (a) What is an inductor? What is the unit of inductance? Give some important applications of inductors.
   (b) What is internet? How you can send an e-mail to your friend?

7. Write short notes on any FOUR of the following:-
   (a) Ionospheric propagation.
   (b) Cathode ray oscilloscope
   (c) Optical fiber communication system
   (d) Dish antenna
   (e) Geostationary satellites.

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